

**National Electricity Transmission System
Security and Quality of Supply Standards
(NETS SQSS)**

Modification Register

(Updated August 2020)

Modification Summary

Dates in **bold** are confirmed dates, while dates in *italics* are anticipated dates for future milestones.

SQSS GSR No.	Title	Modification Proposal Raised	Workgroup Stage	Previous Workgroup Meeting	Next Workgroup Meeting	Workgroup Report Approved by Review Panel	I/C Published	I/C Closed	Responses Received	Modification Report Submitted to Authority	Authority Decision	Implementation Date
016	Embedded Generation Assumptions	22 July 2013	→	11 January 2017	→	4 Dec 2017	6 Dec 2017	3 Jan 2018	→	28 Feb 2018	25 May 2018	01/04/2019
018	Treatment of Sub-Synchronous Oscillations in the NETS SQSS	4 December 2013	→	→	→	2 Dec 2015	11 April 2016	09 May 2016	→	31 Jan 2017	7 March 2017	01/04/2019
022	Security and Economy Required Transfer Conditions	1 June 2016	→	24 May 2014	<i>ON HOLD</i>							Work to recommence March 2020
023	Clarification of the N-1-1 Requirements and minor housekeeping change	9 May 2018	x	x	x	x	25 June 2018	<i>20 July 2018</i>	→	24 Aug 2018		01/04/2019
024	National Grid Legal Separation Changes	9 May 2018	x	x	x	x	08 June 2016	<i>05 July 2018</i>	→	24 Aug 2018		01/04/2019
025	ER P28 Diagram Update	<i>14 Sep 2018</i>					<i>Sep 2018</i>	<i>Oct 2018</i>	→	<i>Nov 2018</i>		TBC

Ongoing Modifications

SQSS GSR No.	016
Title	Embedded Generation Assumptions
Proposer	Vandad Hamidi (NGET)
Submitted	22 July 2013
Modification Description	Progress
<p>GSR016 was raised to specify how embedded generation should be treated in Chapter 4 MITS studies. The GSR009 modification to the NETS SQSS in 2011 specified certain scaling factors for various types of generation (based on fuel type) with different scaling factors under the economy and security criteria. These scaling factors are only considered for “large” power stations (i.e. generation over 100MW in England and Wales).</p> <p>Boundary transfer calculations are performed assuming static net demand within the boundaries. The net demand is supplied to transmission companies as part of Week 24 Data submissions from the DNOs. Given the increase in the penetration of embedded generation, it is no longer possible to accurately calculate boundary transfers without considering the impact of embedded generators within the boundaries. To date, there is no standard treatment of embedded generation in the DNO submissions, leading to various assumptions across GB.</p> <p>It is therefore recommended to amend the NETS SQSS to explicitly specify how to include the impact of small and medium power stations on boundary calculations.</p>	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 22 July 2013 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.</p> <p>Workgroup The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference have been agreed by the NETS SQSS Review Panel and a Workgroup has been established with Workgroup Meetings in progress. The Draft Workgroup Report is currently being reviewed by the Workgroup.</p> <p>Industry Consultation GSR016 was published for Industry Consultation on 6 December 2017 and closed on 3 January 2018.</p> <p>Modification Report The GSR016 Modification Report was submitted to the Authority on 28 February 2018.</p> <p>Authority Decision & Implementation The Authority approved GSR016 on 25 May 2018. The Authority also made a decision to delay the implementation of GSR018 and issue a second Industry Consultation to include both GSR016 and GSR018, so that both modifications can be implemented together. The Authority has not yet issued the statutory consultation to modify the licenses and will do so at an appropriate time in the future.</p>

	This modification was implemented on 1/04/2019.
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SQSS GSR No.	018
Title	Treatment of Sub-Synchronous Oscillations in the NETS SQSS
Proposer	Graham Stein (NGET)
Submitted	4 December 2013
Modification Description	Progress
<p>A number of Transmission Licensees and Transmission Users are in the process of enhancing their networks or connecting generation using Series Capacitor and / or HVDC technology. Both of these types of equipment can cause sub-synchronous oscillations (SSO) to occur by interacting with other User's equipment in the form of sub-synchronous resonance (SSR) or sub-synchronous torsional interaction (SSTI).</p> <p>The Grid Code Review Panel Paper: "Suppression of Sub-Synchronous Resonance from Series Compensators" (pp13/54) proposed changes to the Grid Code to place obligations on Transmission Licensees to mitigate SSR where Series Compensation is deployed. The Grid Code Review Panel asked that these proposals be given further consideration in light of concerns raised by Transmission Licensees about how and where any SSR related obligations are expressed within the transmission frameworks. The Grid Code Review Panel also asked whether there was a need to capture SSR and SSTI within the NETS SQSS.</p>	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 4 December 2013 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.</p> <p>Workgroup The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference were approved at the 2 April 2014 NETS SQSS Review Panel and a Workgroup has been established. The Workgroup Report was presented and approved at the 2 December 2015 NETS SQSS Review Panel. This shall now proceed to industry consultation in due course.</p> <p>Industry Consultation An Industry Consultation was published on 11 April 2016 with a closing date of 09 May 2016.</p> <p>Modification Report A Modification Report that summarises the Industry Consultation responses has been produced and submitted to the Authority for a decision. The Modification was sent back by the authority with a request for further work to be done. The Modification Report was re-submitted to the Authority.</p> <p>Authority Decision & Implementation GSR018 was re-submitted to the Authority for a decision on 31 January 2017. The Authority approved the modification on 7 March 2017 and the first Statutory Industry Consultation to amend the licence closed on 19 March 2018. The Authority has decided that this modification is not time critical so a second Industry Consultation will be issued for GSR016 and GSR018, so</p>

	that both modifications can be implemented together. This modification was implemented on 01/04/2019.
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SQSS GSR No.	022
Title	Security and Economy Required Transfer Conditions
Proposer	NGET
Submitted	1 June 2016
Modification Description	Progress
<p>The Workgroup considers issues and interactions that arise when applying NETS SQSS Section 4 criteria due to the availability of generation and due to generation technology.</p>	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 1 June 2016 where the NETS SQSS Review Panel determined that nominations for the Workgroup would be sent out and Terms of Reference agreed.</p> <p>Workgroup The amended Terms of Reference were agreed at Panel on 8 February 2017.</p> <p>Industry Consultation GSR022 has not yet progressed to this stage.</p> <p>Modification Report GSR022 has not yet progressed to this stage.</p> <p>Authority Decision & Implementation GSR022 has not yet progressed to this stage.</p> <p>The SQSS Panel agreed to this modification being placed on hold until March 2020.</p> <p>The Proposer withdrew this modification on 11 May 2020.</p>

SQSS GSR No.	023
Title	Clarification of the N-1-1 Requirements and Minor Housekeeping Change
Proposer	Bieshoy Awad (NGET)
Submitted	9 May 2018
Modification Description	Progress
<p>The proposal seeks to modify the NETS SQSS to ensure that it reflects the history of the requirement to secure parts of the NETS against a fault outage that takes place during a planned outage (N-1-1 condition). It also proposes a minor housekeeping change to reflect the name change of one Transmission Licensee (SHETL to SHET) in both the NETS SQSS and the corresponding NETS SQSS Industry Governance.</p>	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 9 May 2018 where the NETS SQSS Review Panel determined that following the review of a draft paper the modification proposal should proceed directly to Industry Consultation as recommended by the Proposer.</p> <p>Industry Consultation A draft Industry Consultation Document was circulated to the NETS SQSS Review Panel for approval on 1 June 2018. This was then released for Industry Consultation on 25 June 2018 for a period of 20 working days and closed on 20 July 2018.</p> <p>Modification Report The GSR023 Modification Report was submitted to the Authority on 24 August 2018.</p> <p>Authority Decision & Implementation GSR023 was submitted to the Authority for a decision on 24 August 2018. The Authority approved the modification on 2 January 2019. On 16 February 2018, the Authority proposed such a modification to implement GSR018. Due to the upcoming arrival of further SQSS modification proposals, e.g. GSR016, the Authority decided, with the support of the SQSS Panel, to delay the implementation of GSR018 such that multiple SQSS modifications could be implemented simultaneously. The Authority are to shortly consult on a new licence modification proposal in order to implement GSR018, GSR016, GSR023 and GSR024 simultaneously.</p> <p>This modification was implemented on 01/04/2019.</p>

SQSS GSR No.	024
Title	National Grid Legal Separation Changes
Proposer	James Martin (NGET)
Submitted	9 May 2018
Modification Description	Progress
<p>The proposal seeks to ensure that the National Grid legal separation changes are updated and reflected in the NETS SQSS and the SQSS Industry Governance Framework. The changes will incorporate the new entity National Grid Electricity System Operator (NGESO).</p>	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 9 May 2018 where the NETS SQSS Review Panel determined that following the review of a draft paper the modification proposal should proceed directly to Industry Consultation as recommended by the Proposer.</p> <p>Industry Consultation A draft Industry Consultation Document was circulated to the NETS SQSS Review Panel for approval on 24 May 2018. This was then released for Industry Consultation on 8 June 2018 for a period of 20 working days and closed on 5 July 2018.</p> <p>Modification Report The GSR024 Modification Report was submitted to the Authority on 24 August 2018.</p> <p>Authority Decision & Implementation GSR024 was submitted to the Authority for a decision on 24 August 2018. The Authority approved the changes to the NETS SQSS proposed in GSR024 on 2 January 2019. For these changes to take effect we will need to modify the relevant conditions of the electricity transmission licence so they refer to the new version of the NETS SQSS. On 16 February 2018, the Authority proposed such a modification to implement GSR018. Due to the upcoming arrival of further NETS SQSS modification proposals, e.g. GSR016, the Authority decided, with the support of the NETS SQSS Panel, to delay the implementation of GSR018 such that multiple SQSS modifications could be implemented simultaneously. The Authority intend to shortly consult on a new licence modification proposal in order to implement GSR018, GSR016, GSR023 and GSR024 simultaneously.</p>

	This modification was implemented on 01/04/2019.
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SQSS GSR No.	025
Title	Updating the SQSS to reflect the recent modification to Engineering Recommendation P28
Proposer	Rachel Woodbridge-Stocks & Greg Heavens (NGET SO)
Submitted	10 September 2018
Modification Description	Progress
This proposal seeks to modify the NETS SQSS to update the maximum voltage step changes permitted for operational switching to accommodate the modification to Engineering Recommendation P28.	<p>Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 14 September 2018 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.</p> <p>Workgroup The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference have been agreed by the NETS SQSS Review Panel and a Workgroup has been established with Workgroup Meetings in progress. The Draft Workgroup Report is currently being reviewed by the Workgroup.</p> <p>Industry Consultation This proposed NETS SQSS Modification is open for Industry Consultation. Any interested party is able to make a response in line with the guidance.</p> <p>Modification Report The final Modification Report was circulated and no concerns were raised. All Panel members agreed for GSR025 to go to Authority within 5 working</p>

	<p>days following Panel Meeting on 16 January 2019</p> <p>Authority Decision & Implementation</p> <p>This modification was submitted to the Authority for decision and will be implemented following approval plus licence consultation by the Authority.</p>
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SQSS GSR No.	026
Title	Adding Non- Standard Voltages to the SQSS
Proposer	Louise Trodden, National Grid ESO
Submitted	6 April 2020
Modification Description	Progress
<p>Following the rejection of modification GSR021 to the System Quality and Standards of Supply (SQSS) by Ofgem, this modification is being raised to seek modifications to the SQSS. A separate modification will be raised to modify the Grid Code. The modifications are looking to incorporate equipment at nominal voltages other than those that are currently used within the Codes. It is also proposed to align the SQSS with the Grid Code with the term 'supergrid' being referred to as a voltage over 200kV.</p>	<p>Modification Proposal</p> <p>The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 6 April 2020 where the NETS SQSS Review Panel determined that the Modification Proposal will progress straight to Code Administrator Consultation.</p> <p>Code Administrator Consultation (Industry Consultation)</p> <p>This proposed NETS SQSS Modification was open for Industry Consultation between 27 July and 24 August 2020. It received one consultation response.</p> <p>Modification Report</p> <p>The Draft Final Modification Report will be published with the Panel Papers on 25 August 2020.</p> <p>Authority Decision & Implementation</p>

SQSS GSR No.	027
Title	Review of the NETS SQSS Criteria for Frequency Control that drive reserve, response and inertia holding on the GB electricity system
Proposer	Robert Wilson, National Grid ESO
Submitted	16 April 2020
Modification Description	Progress

This modification is required to address the specific actions from the Energy Emergency Executive Committee (E3C) and Ofgem final reports into the power outage of 9th August 2019 for the ESO to review, in consultation with industry, the NETS SQSS requirements that drive reserve, response and inertia holding on the GB electricity system.

Modification Proposal

The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 16 April 2020 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.

Workgroup

The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference have been agreed by the NETS SQSS Review Panel and **a Workgroup has been established with Workgroup Meetings in progress.**

Workgroup consultation

Though it is not a requirement of the SQSS to hold a Workgroup Consultation, the Workgroup have agreed to hold one for 10 working days in September 2020.

Code Administrator Consultation (Industry Consultation)

The industry consultation is currently planned to be held in October for 10 working days.

Modification Report

The Draft Final Modification Report is scheduled to be published in advance of the November 2020 SQSS Pane. The Final Modification Report will be sent to Ofgem following that.

Authority Decision & Implementation